

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION**

DEQUE SYSTEMS INC.

Plaintiff,

v.

Case No. 1:24-cv-00217-AJT-WEF

BROWSERSTACK, INC., and
BROWSERSTACK SOFTWARE PVT. LTD.,

Defendants.

**DECLARATION OF APURV JAIN IN SUPPORT OF DEFENDANTS' OPPOSITION TO
PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT**

I, Apurv Jain, declare as follows:

1. I am over 18 years of age and not a party to this action. I have personal knowledge of the facts set forth herein unless otherwise indicated, and if called to testify, I could and would testify competently thereto.

2. I previously submitted a declaration in support of Defendants BrowserStack, Inc. (“BrowserStack U.S.”) and BrowserStack Software Pvt. Ltd.’s (“BrowserStack India’s”) Motion for Summary Judgment, which was filed with this Court on November 15, 2024. I submit this second declaration in support of Defendants’ Opposition to Plaintiff’s Motion for Summary Judgment (the “Opposition”). For convenience, I have included in this declaration both the information that I had previously submitted in my prior declaration, as well as additional information in support of Defendants’ Opposition.

3. I hold a bachelor’s degree in computer science and a master’s degree in computer science from Georgia Institute of Technology. Since approximately 2019, I have been employed by BrowserStack India as a product manager, and I have served as the product manager for BrowserStack’s web accessibility testing toolkit (“Accessibility Toolkit”) since the development launch of the Accessibility Toolkit in June 2022. In my role as a product manager, I generally oversee and manage product development, launch and strategy, and help ensure alignment between various stakeholders, including the engineering, business, design, and marketing teams. I also conduct primary and secondary research, such as competitive market research and assessment of customer needs and feedback to help develop and guide product development and strategy.

4. BrowserStack India is an Indian entity with its principal address in Mumbai, India. BrowserStack India designs and develops testing software that allows software developers

and quality assurance personnel to test their websites and mobile applications for functionality and performance, ensuring they run as intended. It is my understanding that all BrowserStack India operations take place in India. It is also my understanding that all research and development for BrowserStack's products are done by BrowserStack India in India.

5. It is my understanding that BrowserStack U.S. is a Delaware corporation with its address in Texas and that BrowserStack U.S. provides marketing and distribution services for BrowserStack Limited, the Irish entity parent that wholly owns BrowserStack U.S. and BrowserStack India. It is also my understanding and experience that BrowserStack U.S. employees have no involvement in the design and development of BrowserStack's products.

6. I understand that as part of BrowserStack India's software development efforts in India, it has in the past purchased and used Deque's axe DevTools Extension product to test accessibility issues with BrowserStack's own products. Because BrowserStack U.S. is not involved in software development, I understand it has never purchased or used Deque's axe DevTools Extension product, and has not executed any license agreement with Deque for use of the axe DevTools Extension product.

7. Among the many different software products BrowserStack India offers is the Accessibility Toolkit software, a browser extension for Google Chrome and Microsoft Edge web browsers that evaluates the navigability, readability, and compatibility of websites with assistive technologies for those with disabilities. As the product manager for the Accessibility Toolkit, I worked with all of the engineers involved in the development of Accessibility Toolkit and have always understood (and also have internally confirmed at BrowserStack India) that all of them reside in India and are employees of BrowserStack India like me.

8. I have reviewed the First Amended Complaint (“FAC”) filed by Deque in this action. In paragraph 64 of the FAC, Deque asserts that as of the time of filing the Complaint BrowserStack had made certain false and misleading statements on its website. It is my understanding that Deque claims that statements that the Accessibility Toolkit is “5x faster” than Deque and that Deque’s product, the axe DevTools browser extension (“axe DevTools”), “[d]oes not have a central dashboard” and “[d]oes not support” “Multi-Page Scanning,” “Report Consolidation,” and “De-duplication of Issues” are false or misleading.

9. None of these statements is currently on BrowserStack’s website or other marketing material.

10. Moreover, none of these statements was false at the time of the filing of this lawsuit.

11. BrowserStack’s Accessibility Toolkit was released with an automated workflow scanner feature (also known as the “Workflow Analyzer”) that could create a consolidated accessibility report of a website across multiple web pages and page states. One of the reasons BrowserStack developed this feature for its own web accessibility testing product is because BrowserStack’s own QA engineers had found this scanning process and review of duplicative issues across separate reports slow and time-consuming when testing BrowserStack’s website accessibility with axe DevTools in 2021 (which was before June 2022, when development of Accessibility Toolkit had started). Other status quo web accessibility testing products such as axe DevTools required manual testing and did not have this automated workflow scanner feature.

12. I personally did the analysis to estimate that the Accessibility Toolkit was approximately “5x faster” than other web accessibility testing products, including axe DevTools. Prior to filing of the FAC, axe DevTools and other status quo web accessibility testing products

took approximately 30 seconds per page state. In other words, it would take approximately 30 seconds to take a page to a fixed state and scan for issues before taking that page to the next state to run the next scan and retrieve results. Thus, for a hypothetical website with 10 pages and 10 states per page, each page would take approximately 5 minutes, whereby 10 pages would take approximately 50 minutes.

13. The status quo web accessibility testing products like axe DevTools also did not de-duplicate issues across pages and states. Based on prior experience and use of these other products, I approximated that the time to de-duplicate issues presented on multiple pages and states would take around the same amount of time, 50 minutes. Based on this, I had calculated the total time for a hypothetical website with 10 pages and 10 states per page to scan and de-duplicate issues to be approximately 100 minutes (50 minutes to scan plus 50 minutes to de-duplicate).

14. In contrast, BrowserStack’s Workflow Analyzer feature of the Accessibility Toolkit took approximately 2 minutes to scan a page with 10 states. Moreover, because the Accessibility Toolkit automatically de-duplicated issues in its report generation, that same hypothetical website with 10 pages and 10 states per page would take only approximately 20 minutes to scan and to de-duplicate issues. By comparing 100 minutes to 20 minutes, I determined the relative speed of BrowserStack’s product to be “5x faster” than status quo manual testing products such as Deque’s axe DevTools. This analysis served as the basis for the “5x faster, end-to-end accelerated workflows” statement. I documented this analysis for the “5x faster” statement in a “Speed improvement calculation” Appendix that I had created prior to December 2023 and which I understand was produced in this case as BROWSERSTACK-00000211.

15. As I mention above, the Workflow Analyzer feature of the Accessibility Toolkit could scan multiple pages and de-duplicate issues into a consolidated accessibility report, something that other web accessibility testing products at that time did not do. At the time the lawsuit was filed, I was not aware of any information (available publicly or otherwise) that indicated that axe DevTools had the ability to conduct accessibility testing across multiple web pages during a single scan, to automatically de-duplicate issues when scanning the different states of a given webpage, or to combine multiple individual reports into a single consolidated report.

16. Attached as Exhibit 1 is a true and correct copy of the URL <https://www.deque.com/blog/introducing-the-new-axe-devtools-extensions-user-flow-analysis-feature/> reflecting a blog post dated June 5, 2024 which includes the following statements:

- a. “Today, we’re announcing the beta release of User Flow Analysis, a new feature of the axe DevTools Extension that lets you test entire customer journeys and create a single report with accessibility issues automatically deduplicated.”
- b. “In the past, testing these complex flows was challenging and time-consuming because many accessibility tools created separate reports for each unique page state.”
- c. “The feature will watch your page for changes and kick off scans whenever unique states are detected. Once complete, axe DevTools Extension consolidates accessibility issues into a single, unified report[.]”
- d. “User Flow Analysis is designed to significantly reduce the time and effort required for accessibility testing. You can swiftly pinpoint and rectify issues,

accelerating your development cycle without compromising accessibility standards.”

17. Additionally, BrowserStack’s Accessibility Toolkit provides an online centralized reporting dashboard where all individual accessibility reports generated through different testing methods are automatically listed and can be accessed by the user. To my knowledge, Deque’s axe DevTools product did not offer any such central reporting dashboard prior to the filing of the FAC and to my knowledge axe DevTools still does not offer any such centralized reporting dashboard.

18. I also understand that in paragraphs 42-44 of the FAC and Deque’s response to BrowserStack’s Interrogatory No. 4 (Exs. A & B), which I have reviewed, Deque asserts that BrowserStack has copied certain material into the Accessibility Toolkit. None of the language that Deque identifies in its FAC and in its response to Interrogatory No. 4 (including Exs. A and B) are in the current version of the Accessibility Toolkit.

19. I also understand that Deque has referenced a “Requirements” document as purported evidence of alleged “reverse engineering” and creation of a “derivative” work by BrowserStack of axe DevTools, and that a printed copy of this BrowserStack document was submitted as Exhibit 1a in support of Deque’s motion. I have reviewed Exhibit 1a, and it appears to be a printed copy of a spreadsheet that I created in India in connection with my work as the product manager of the Accessibility Toolkit product. This document was intended to be and reflects a high-level summary of the WC3 Web Content Accessibility Guidelines (“WCAG”) standards that BrowserStack was to consider testing with assisted tests in its Accessibility Toolkit product. As reflected in the spreadsheet, it included references to the relevant WCAG rules and then publicly available information about those rules (including links to what were

publicly available Deque webpages summarizing the WCAG rules). There is no reference to, or mention of, any axe DevTools source code in this document. The Deque information referenced in the document referred only to general information about WCAG guidelines that had been publicly available.

20. The designation of “true” or “false” in Column H of the Requirements document does not indicate that any particular text or content appearing in the Requirements document was coded in the Accessibility Toolkit.

21. It is my understanding that Deque in its Motion for Summary Judgment has described the word “focusability” as a typographical error. However, based on my work and experience in the website accessibility testing, the word “focusability” is not a typographical error but rather a commonly used term related to whether or not a particular element on a website is focusable by the user. Just a few examples of how “focusability” has been used in the accessibility field can be found at the following publicly available URLs:

<https://www.w3.org/WAI/ARIA/apg/practices/keyboard-interface/#focusabilityofdisabledcontrols>, <https://www.accessibility-developer-guide.com/knowledge/keyboard-only/how-to-implement/#focusability>,
<https://accessibility.huit.harvard.edu/technique-keyboard-accessible-links>,
<https://knowledge.evinced.com/system-validations/keyboard-accessible>,
<https://its.uiowa.edu/services/web-and-it-accessibility/accessibility-tips-images-and-non-text-elements>, <https://www.commcarehq.org/styleguide/b5/atoms/accessibility/>. I have attached as Exhibit 2 true and correct copies of printouts of these webpages wherein uses of the term “focusability” can be searched for and found.

22. I am informed that Deque also has claimed that because both the Accessibility Toolkit and axe DevTools are both built on Deque's axe Core open source engine or otherwise use the axe Core open source software, that the Accessibility Toolkit cannot be five times faster than axe DevTools. This is simply not true. The Accessibility Toolkit product's speed and efficiency gains are unrelated to the axe Core open source software. As I explained above, by introduction of its Workflow Analyzer feature, the Accessibility Toolkit product introduced significant efficiency gains over comparable status quo tools at the time (including axe DevTools) for the purposes of creating consolidated accessibility reports by supporting automatic multi-page scanning, de-duplication of issues, and the creation of final consolidated accessibility reports.

23. BrowserStack India independently developed the Accessibility Toolkit, including the Workflow Analyzer feature and assisted test rules engine, in India, without reverse engineering or copying source code from axe DevTools.

24. The earliest version of the Accessibility Toolkit made available to limited customers in November 2022 did not include assisted tests, such as keyboard navigation tests or interactive elements tests. Since then and to this day, BrowserStack continues to update the Accessibility Toolkit and release new versions of the product.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on this 6 day of December 2024 in Mumbai, India.

By: _____
Apurv Jain